Woodsmith PLANS

FLAT-SCREEN TV LIFT CABINET

flat-screen TV Lift Cabinet

Now you see it, now you don't. This stylish and practical cabinet allows you to have your flat-screen TV visible only when necessary.

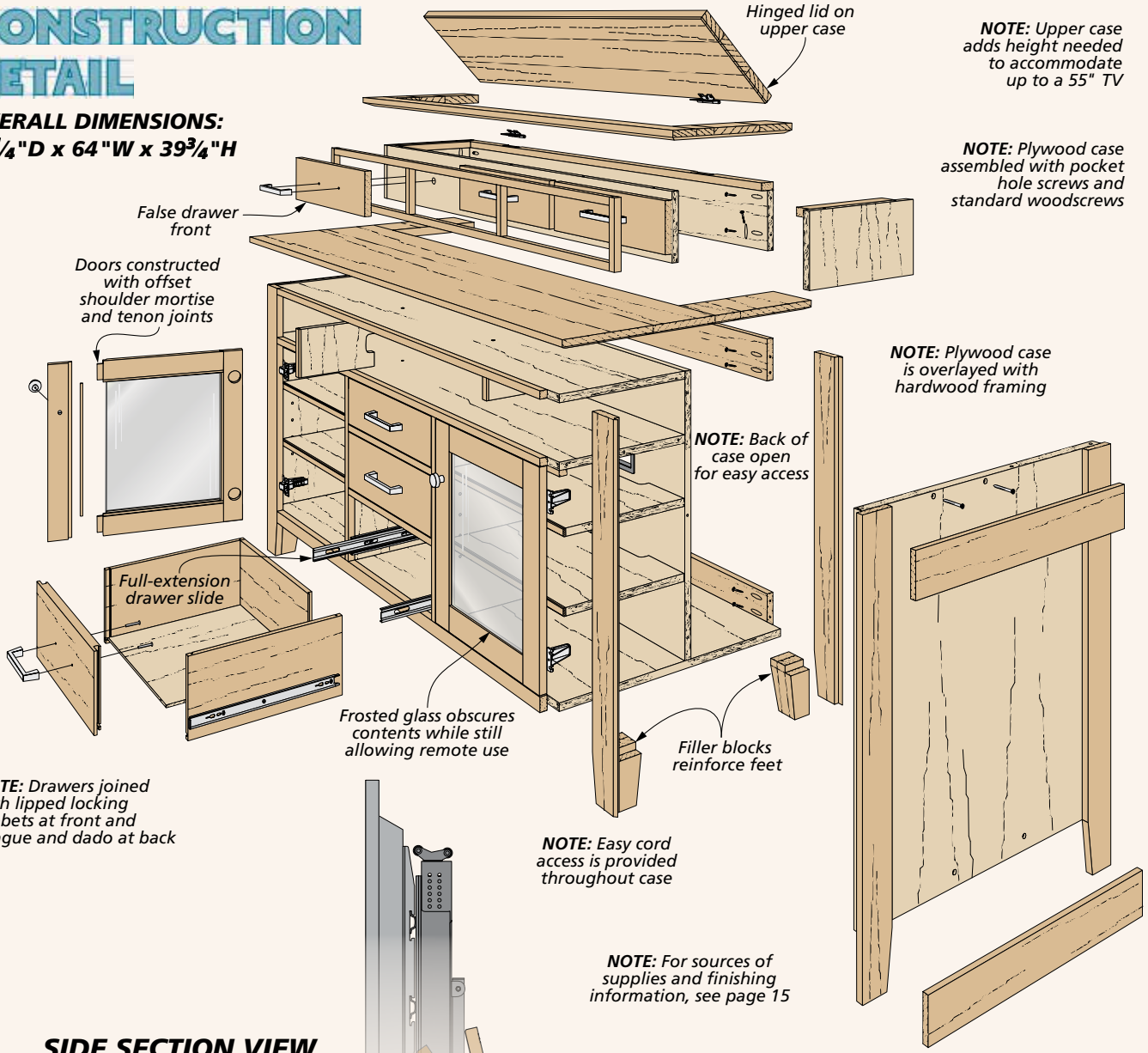
Today's large, flat-screen TVs are certainly not unattractive, but can be a bit overwhelming when on permanent display. This cleverly designed cabinet offers a solution that allows you to have your cake and eat it too. The secret is a smoothly operating lift mechanism that raises the TV out of the back of the cabinet for viewing. And when you want to make the TV disappear, presto, it descends to be hidden until needed again.

But that's just half the story, or I should say, half the project. The cabinet also provides space and storage for all the gadgets and accessories that enhance your entertainment experience. A combination of drawers, enclosed shelving, and open cubbies offers a variety of options.

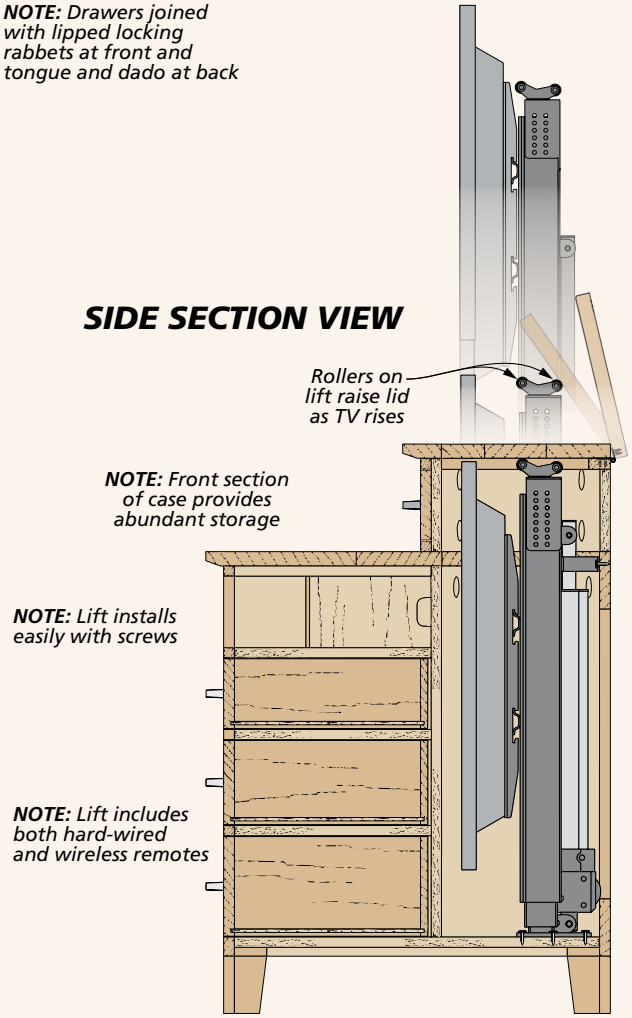
If all this sounds complicated to build, don't be concerned. Barebones, yet solid, joinery and a few simple design tricks make this project go together in a snap. And when it's completed, the fun really begins. You might have the only levitating TV on the block.

CONSTRUCTION DETAIL

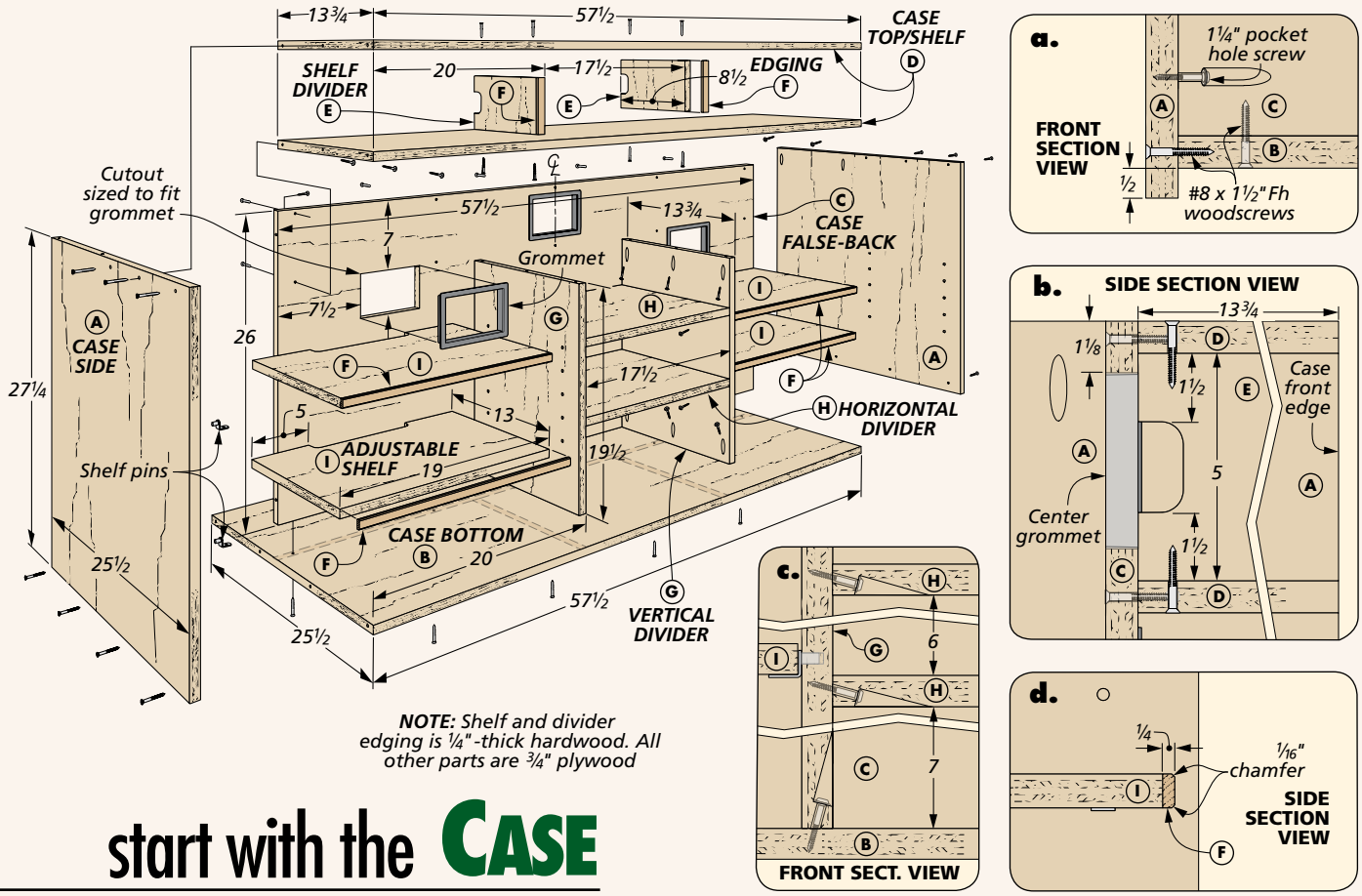
OVERALL DIMENSIONS:
28¼"D x 64"W x 39¾"H



SIDE SECTION VIEW



▲ With the TV lowered, all you see is an attractive storage cabinet. You might never guess what's hidden in the rear compartment.



NOTE: Shelf and divider edging is ¼"-thick hardwood. All other parts are ¾" plywood

start with the CASE

You'll start by assembling the large plywood case that forms the foundation of the cabinet. To keep this task manageable, I relied on standard woodscrews and pocket hole screws for joinery.

OVERVIEW. The deep case is divided into multiple compartments (drawing above). At the front of the case, open cubbies separated by shallow dividers run across the top. Below, a centered bank of three drawers is flanked by enclosed shelving compartments. A section across the back of the case is walled off to hold the TV and lift. The TV compartment isn't enclosed with a back panel — just an open frame. This allows easy access.

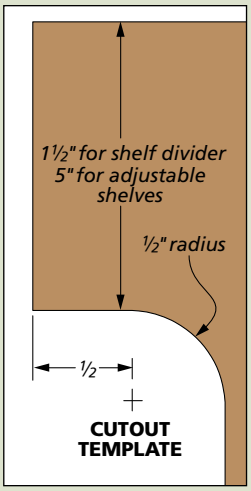
GETTING STARTED. The first pieces you'll need are the two sides, the bottom, and the false-back. Once these are cut to size, you can start drilling pilot holes.

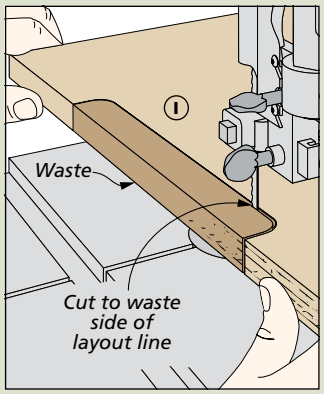
The case sides are fastened to the top and bottom with standard woodscrews. (Later, they'll be covered by solid-wood framing.) So your first task is to drill a row of countersunk pilot holes across the bottom of each side panel and a second short series at the top. In addition, the side panels need a pair of pocket screw holes on the inside along the back of the top edge. These are used to attach the solid-wood top.

BOTTOM. All the bottom needs is a series of countersunk pilot holes spaced along the length of the panel near the middle. These will be used to fasten the false-back to the bottom.

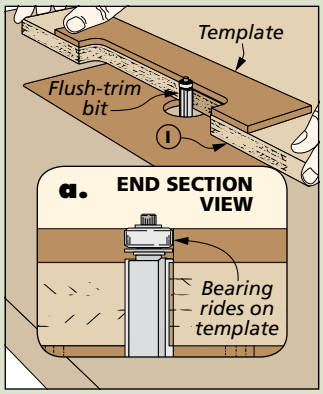
FALSE-BACK. The work on the false-back takes longer. First, there are pocket screw holes at each side drilled from the back (detail 'a'). Next come several series of countersunk pilot holes used to fasten

How-To: Divider & Shelf Cutouts





Band Saw. *Lay out the shape, then remove the waste staying to the outside of the line.*



Trim. *Next, I used a hardboard template and a flush-trim bit to smooth the cuts.*

the plywood top and internal panels. Finally, you'll form three cord access openings that are fitted with plastic grommets.

Cutting the access holes is the only challenge and it's a modest one. Flanges on the grommets cover the edges so the fit doesn't need to be perfect. Just lay out the shape, drill starter holes, and remove the waste with a jig saw.

ASSEMBLY. Once these tasks are completed, the sides, bottom, and false-back can be assembled. The trick is to keep the pieces aligned and in tight contact while the screws are installed. The How-To box at right provides guidance. Cleats and spacers are the key.

CUBBY ASSEMBLY. Next, you'll add the cubby assembly to the case. This consists of a top panel, a shelf panel and a pair of dividers.

The top and shelf can be cut to identical size. The shelf needs three pocket holes on the underside at each end and then both panels have countersunk screw holes to fasten the dividers.

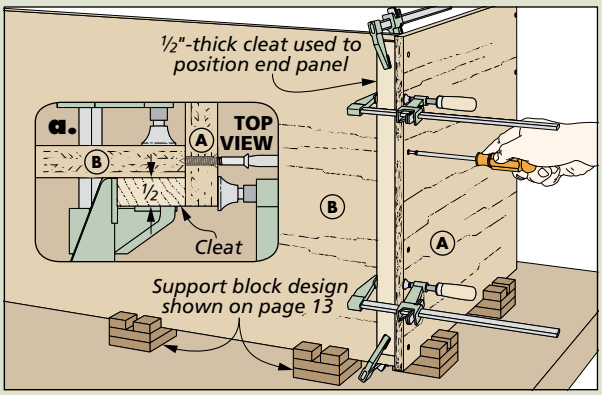
The recessed dividers have edging on the fronts. I also formed cord cutouts on the back edges using the technique shown on the previous page. Then you can assemble this section and add it to the case as described at right.

LOWER DIVIDERS. The final pieces to install are a pair of vertical dividers and two horizontal dividers. These are installed one at a time — first the vertical dividers followed by the horizontal dividers.

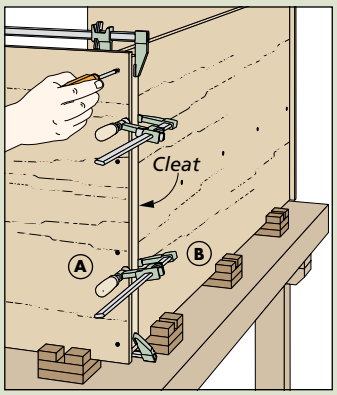
Pocket hole screws hold the vertical dividers in place. Spacers will help keep them in position while installing the screws. Then the horizontal dividers are added, also using pocket hole screws and spacers (detail 'c,' previous page).

SHELVES. You can wrap up this phase by drilling sets of shelf pin holes in the side compartments and making four shelves. A template makes drilling shelf pin holes go quickly (How-To box). The shelves will need edging on the fronts and a cutout at the back (How-To, previous page).

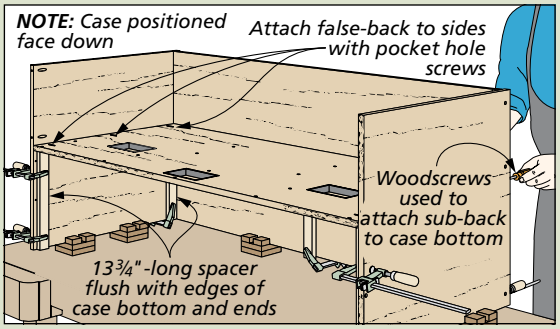
How-To: Step-by-Step Assembly



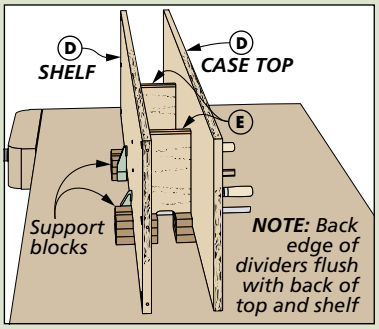
Side to Bottom. *Start the assembly by clamping a cleat flush with one side of the case bottom. Then clamp the case side to the cleat before installing the screws.*



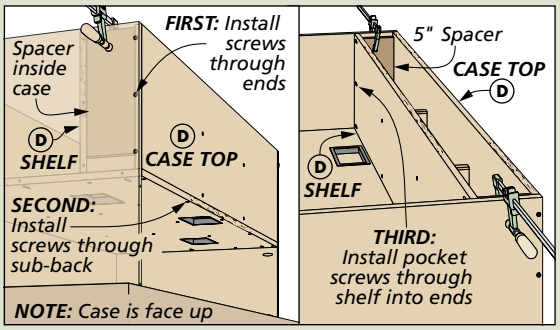
Opposite Side. *The other side of the case can now be attached in the same way.*



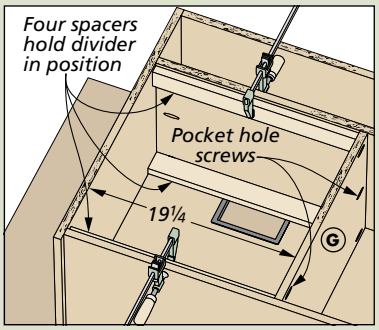
Add the False-Back. *Before installing the false-back, I clamped supports to the case sides and bottom, and then turned the assembly onto its front.*



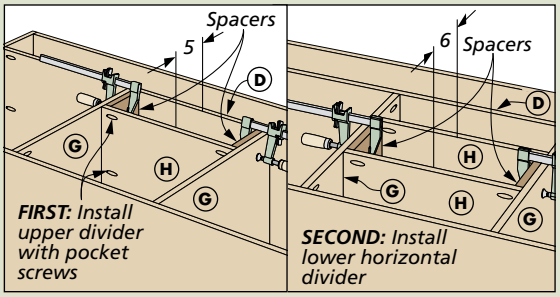
Assemble Cubbies. *Clamp the shelf dividers between the case top and shelf, then install the screws.*



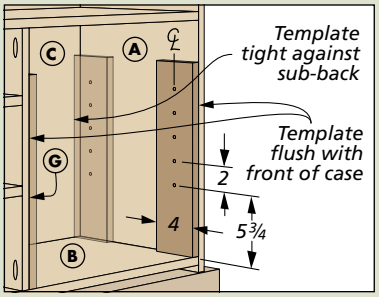
Add Cubbies. *Flip the case onto its back to install the cubby assembly. Attach the top first. Spacers will hold the shelf in place while driving the pocket screws.*



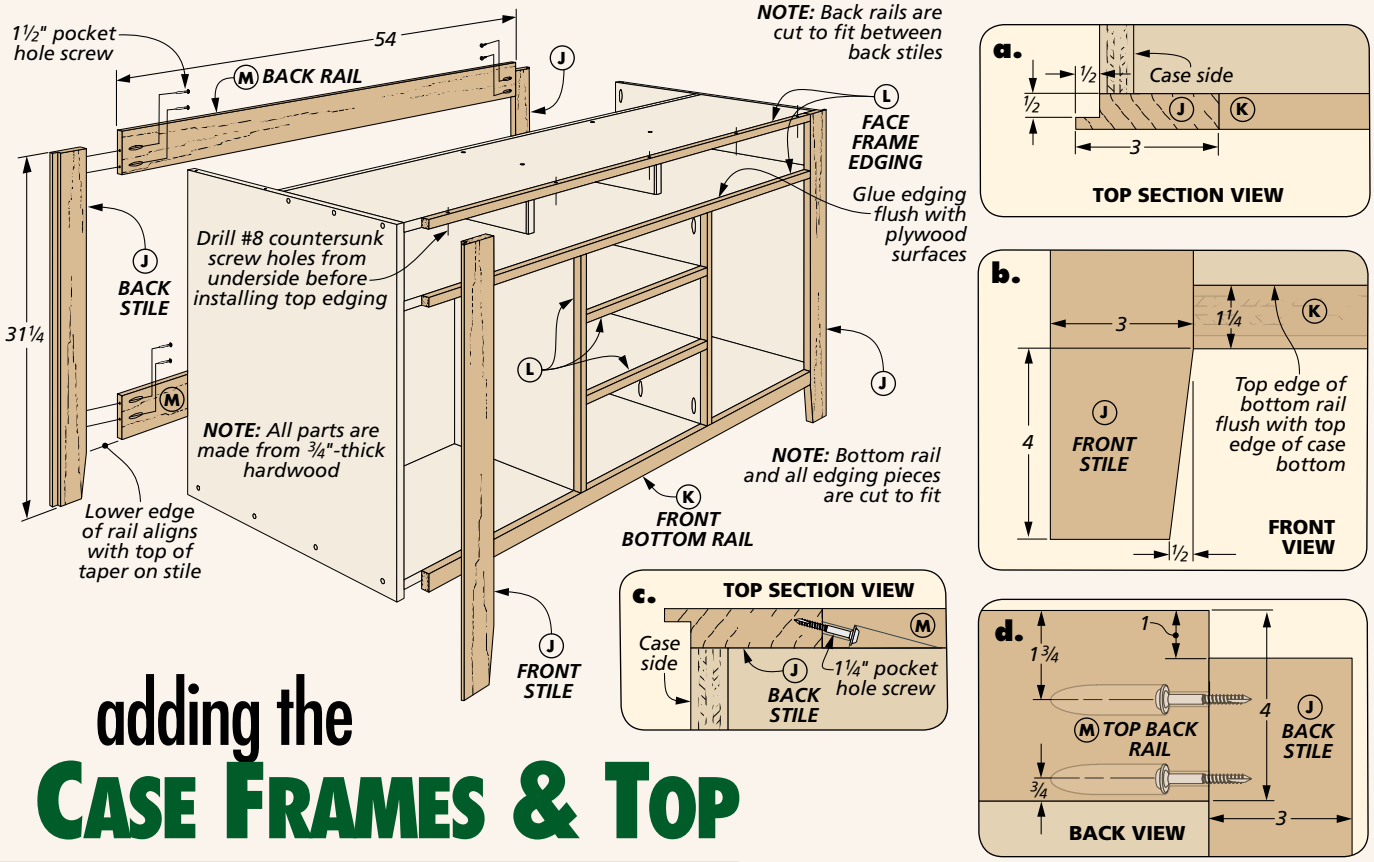
Vertical Dividers. *Spacers at the top and bottom align the dividers while installing pocket hole screws.*



Finally, Horizontal Dividers. *The horizontal dividers are likewise installed using spacers. One set for the upper divider and a wider set for the lower divider.*



Shelf Pin Holes. *Once the assembly is completed, drill shelf pin holes in both side compartments.*



adding the CASE FRAMES & TOP

With the case assembled, you can now add the hardwood framing that overlays it. The front comes first, followed by the back, and finally, the two sides. The fact that most of the pieces are glued in place with butt joints makes this a fairly straightforward task.

STILES. Since the front and back stiles are identical pairs, I started by making both at once. As you can see in detail 'a,' the outside edges are rabbeted to capture the edges of the side stiles. Furthermore, the lower ends of the stiles are tapered to form feet.

Once the blanks are cut to size, the box below leads you through both operations. When the front stiles are glued in place, the shoulders of the rabbets should be flush with the sides (detail 'c').

RAILS & EDGING. With the stiles in place, you can fit the lower rail and middle and upper edging pieces and then glue them to the case. The width of the middle and upper rail should match the thickness of the plywood. The upper rail has countersunk screw holes used later to fasten the top. I used clamps with wedges to apply pressure to the middle piece. Finally, the edging for the vertical and horizontal dividers is added in the same way.

THE BACK FRAME. The back frame consists of just two stiles and an upper and lower rail. However, this frame is joined with pocket hole screws, as shown above.

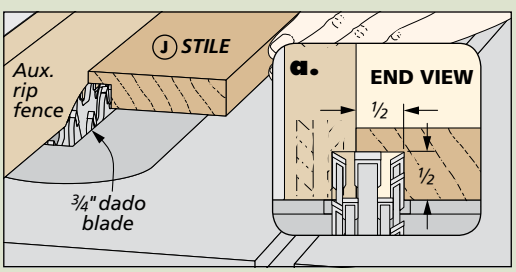
The two rails are identical in size. But note that the upper rail is installed proud of the ends of the stiles (detail 'd'). This extension fills a gap at the back of the solid-wood top you'll add later.

I sized the frame by clamping the two stiles in position on the case and cutting the rails to fit between them. Then you can assemble the frame with pocket hole screws. Finally, glue and clamp the frame to the case, taking care to align it with the sides.

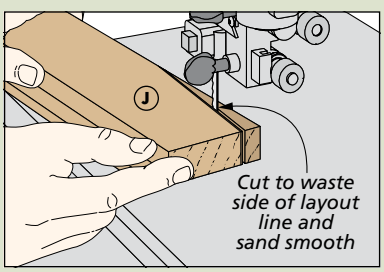
SIDE FRAMES. With the front and back frames in place, fitting the side frames is easy. Each consists of a pair of stiles and an upper and lower rail. The stiles are cut from stock planed to ½" thick, while the rails are just ⅜" thick.

After cutting the side stiles to size and shaping the feet, the stiles

How-To: Front & Back Stiles



Stile Rabbet. *I used a dado blade buried in an auxiliary rip fence to cut the ½" square rabbets in the front and back face frame stiles.*



Tapers. *After laying out the taper on each stile, remove the waste at the band saw and sand the edges.*

can be glued to the case (detail 'c'). Thick cauls will provide a clamping surface on the interior of the case. Once all four side stiles are in place, the rails can be cut to fit between them and glued to the case flush with the upper and lower edges of the case sides.

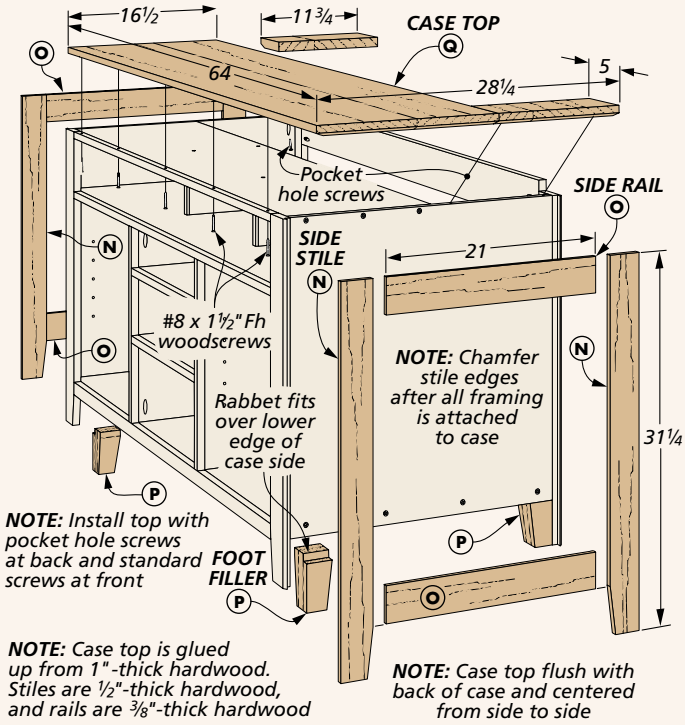
FOOT FILLERS. The tapered feet are reinforced with filler blocks glued up from three pieces of ¾"-thick stock (detail 'b'). The box below shows how they're made. After smoothing the tapered faces, they can be glued in place.

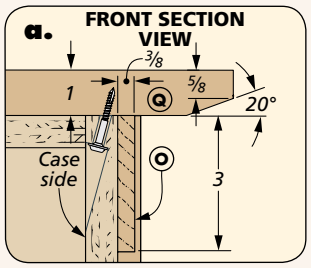
CHAMFERS. The case needs one more detail. All four corners are chamfered to disguise the glue line between the stiles. This is easy to do with a chamfer bit in a hand-held router (How-To box).

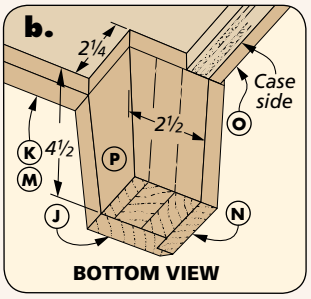
THE TOP

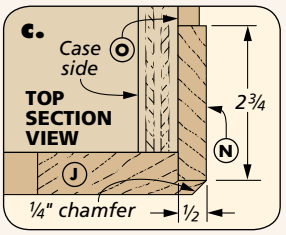
Adding a solid-wood top comes next. And like the case it sits on, the top has a large opening at the back. The How-To box below shows how this opening is created. I simply cut a front panel and two narrow extensions to size before gluing them together.

BEVELS. To lighten the appearance of the thick top, I beveled the lower edge of the front and sides (detail 'a'). A simple router jig and a straight bit will do the job, as described on page 13.



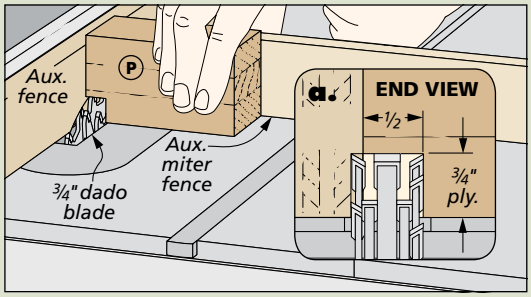




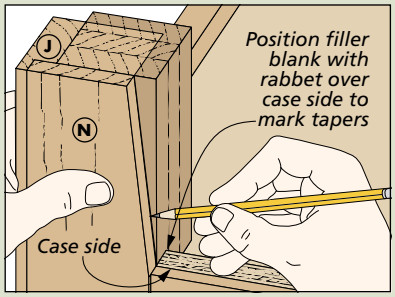


INSTALLATION. Once it's ready, the top is fastened to the case with both glue and screws. I glued it to the case top only through the middle, used pocket hole screws at the back, and installed standard screws through the front edging.

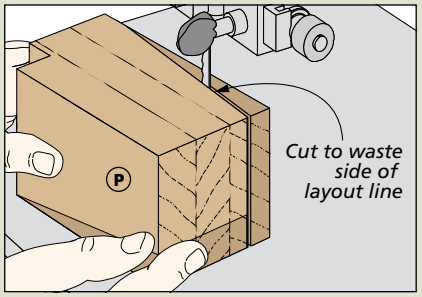
How-To: Make the Filler Blocks & Top



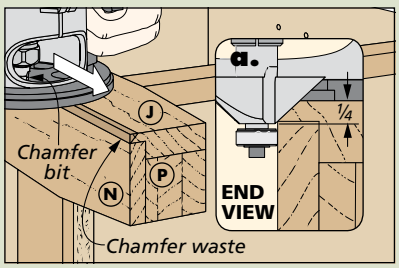
First, a Rabbet. *Once the blocks are cut to overall size, cut a rabbet along one short edge. This allows the block to fit over the case side.*



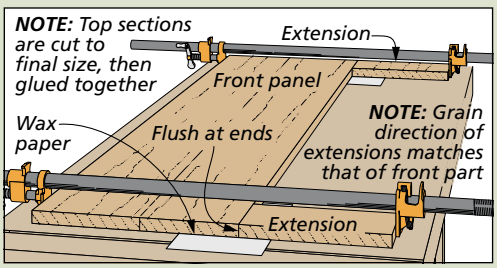
Mark Profile. *With the rabbets cut, you can position each block on the case and mark for the taper cuts.*



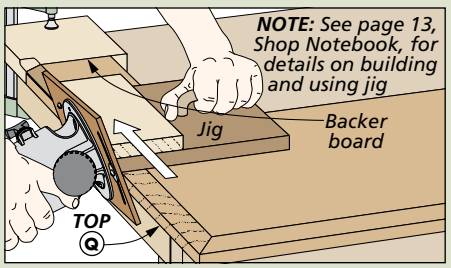
Cut the Tapers. *Finally, cut the tapers at the band saw and sand or plane the faces before gluing the blocks in place.*



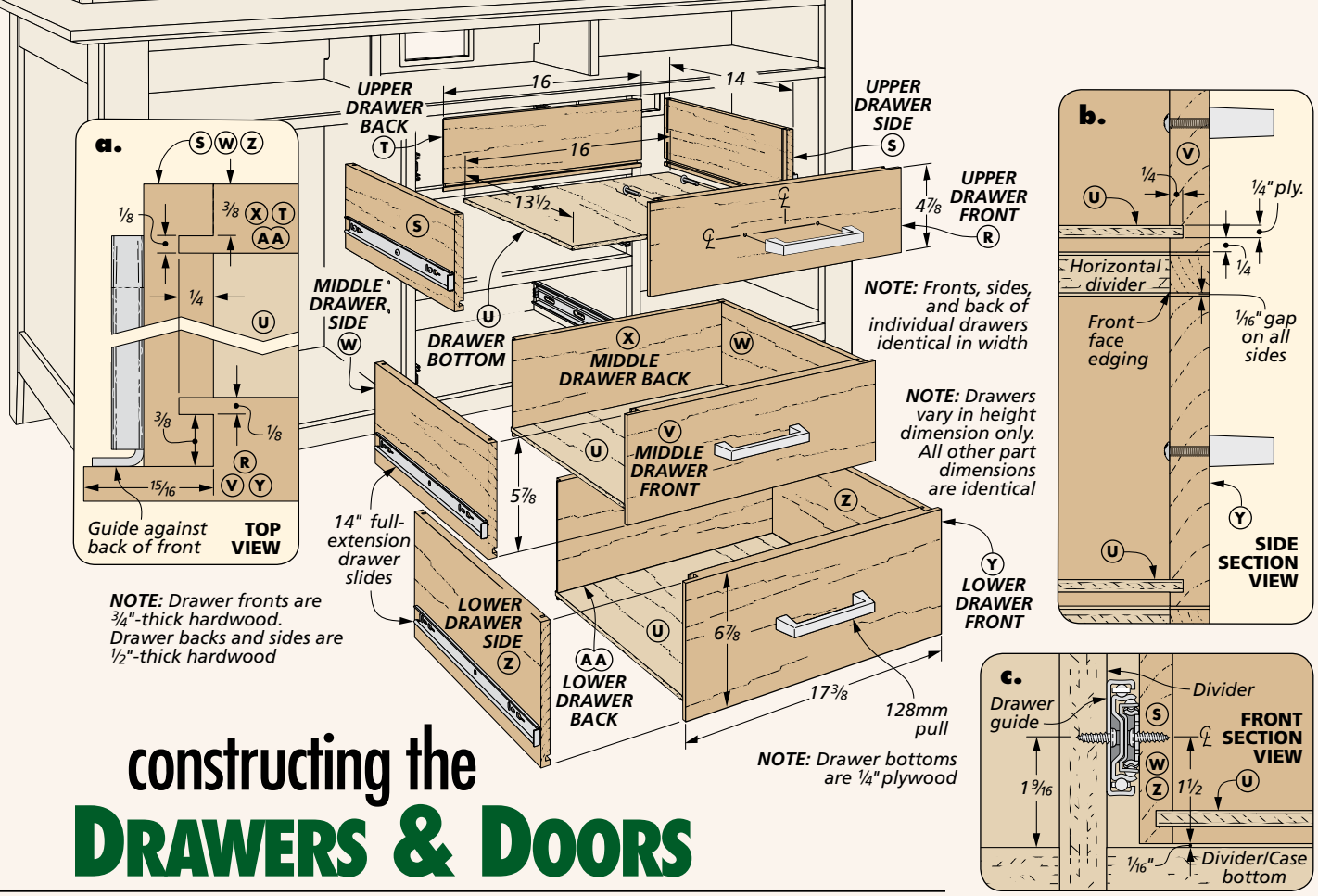
Rout a Chamfer. *You'll have to flip the case onto its front and then its back to rout chamfers on the stiles.*



Three Sections. *When gluing up the sections of the top, make sure that the outside edges are flush and the panel ends up flat.*



Edge Bevels. *I used a router jig with a tilted fence to form the bevels on the front and side edges of the top.*



constructing the DRAWERS & DOORS

Building the three graduated drawers and a pair of doors will complete the lower cabinet. I tackled the drawers first.

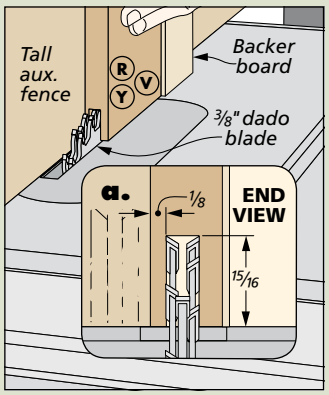
DRAWER JOINERY. The drawers are designed to fit flush with the front edging and are installed in the case on metal slides. But rather than hide the slides with false fronts, I joined the sides and fronts with "lipped" locking rabbets that serve this purpose (detail 'a'). The backs and sides use tongue and dado joints.

You can start by cutting the fronts to size from ¾"-thick stock and the sides and back from ½"-thick stock. The drawers are sized for a 1/16" gap all around.

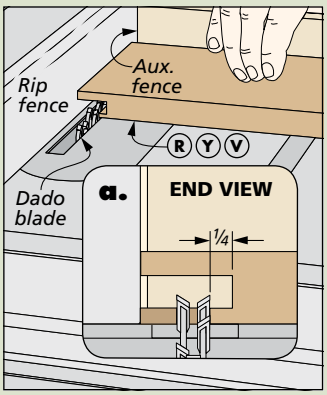
The box below shows the steps involved in cutting the drawer joinery. Even though the front and back joints are different, you can cut both concurrently, saving yourself some setup time.

The first step is to form the lip and a tongue on the ends of all the drawer fronts with a dado blade. Then after burying the same dado blade in an auxiliary rip fence, you can form the tongues on the ends of the drawer backs. You want both the front and back

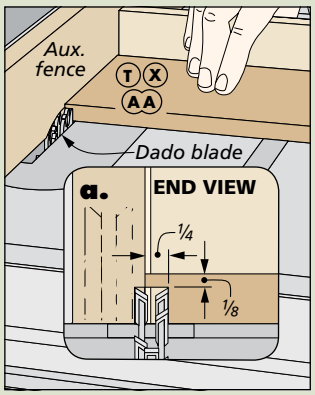
How-To: Lipped Locking Rabbets



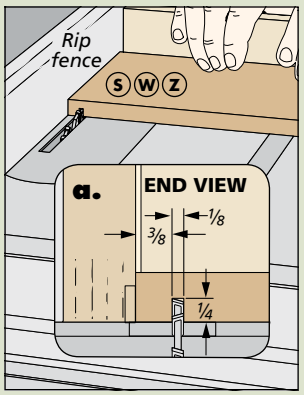
A Slot. *The first step is to cut a deep slot across both ends of the drawer fronts.*



A Tongue. *Next, you'll trim back the inside shoulders to create ¼"-long tongues.*



Back Tongue. *Cut rabbets to create the same size tongues on the ends of the backs.*



Side Dadoes. *Finally, use a standard blade to cut mating dadoes in the sides.*

tongues to be a saw blade's width (⅛") in thickness.

Finally, I switched back to a standard blade to cut dadoes in the sides to hold the tongues. The same setup will handle both dadoes on each side.

Before assembling the drawers, you'll have to cut grooves to fit the plywood bottoms and cut the bottoms to size. Then you can add the slides — drawer section first, then the case section. The drawer section fits tight to the front lip while the case section sits back ¼" from the front facing (details 'a' and 'c,' previous page). Adding centered pulls completes the drawers.

THE DOORS

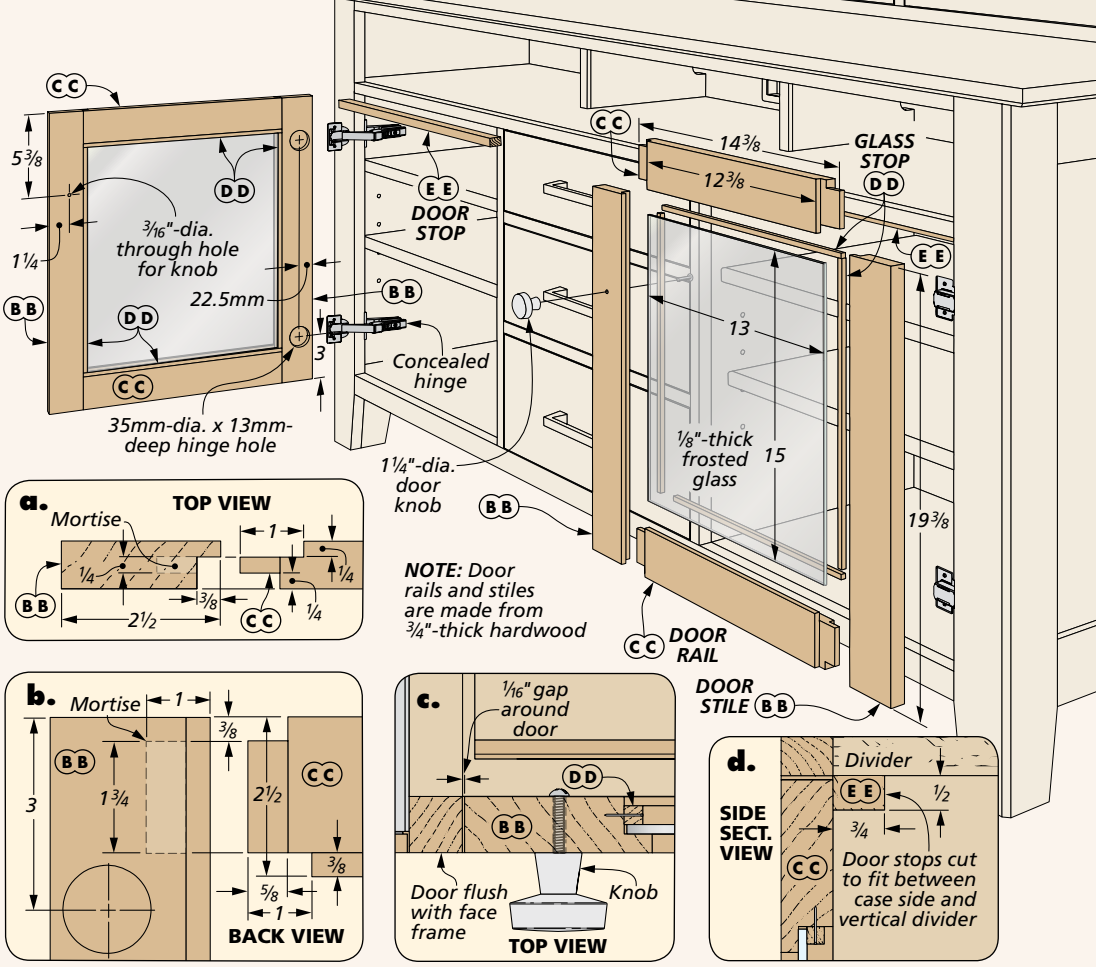
Next up is a pair of glass-panel doors to enclose the side compartments. These are constructed with offset-shoulder mortise and tenon joints, as in detail 'a.' This creates a ready-made pocket for the glass in the assembled frame.

THE STEPS. Once you've cut the stiles and rails to size, take a look at the How-To box at right for a step-by-step guide through the joinery. As usual, cutting mortises in the stiles is the first task. This is followed by rabbeting the back, inside edges of both the stiles and the rails.

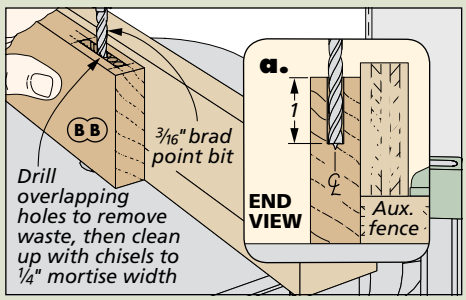
Cutting the offset shoulder tenons to fit the mortises in the rabbeted stiles will be a test of your skill. Careful setup along with test cuts are the keys to success. I cut the shorter inside cheeks first, then reset the fence to cut the outside cheeks. The offset between the tenon shoulders should match the depth of the rabbets.

HINGES & STOPS. After the tenon haunches are cut, the doors can be assembled and then installed with concealed hinges. And finally, you can add a pair of stops to the case (detail 'd').

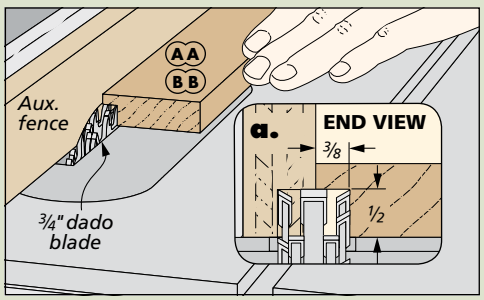
GLASS. I waited until after the finish was applied to install the glass with strips of ¼"-square stop. It's butt jointed and pinned in place (detail 'c'). A knob on each door is the last addition.



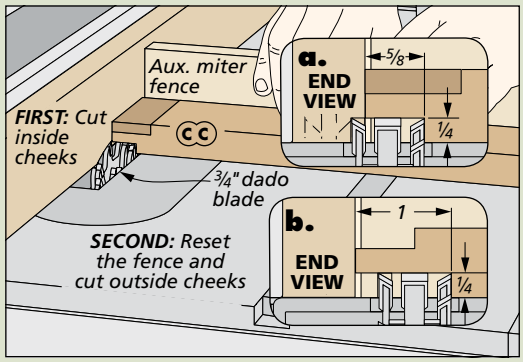
How-To: Door Joinery



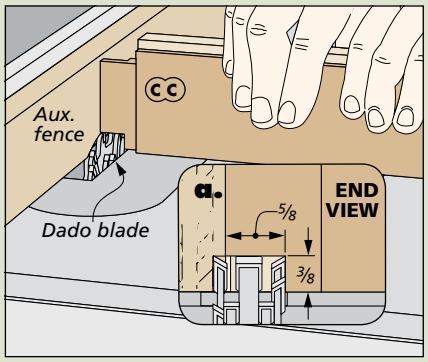
Mortises. *After laying out the mortises, drill out the waste with a series of overlapping holes. Square up the mortises with chisels.*



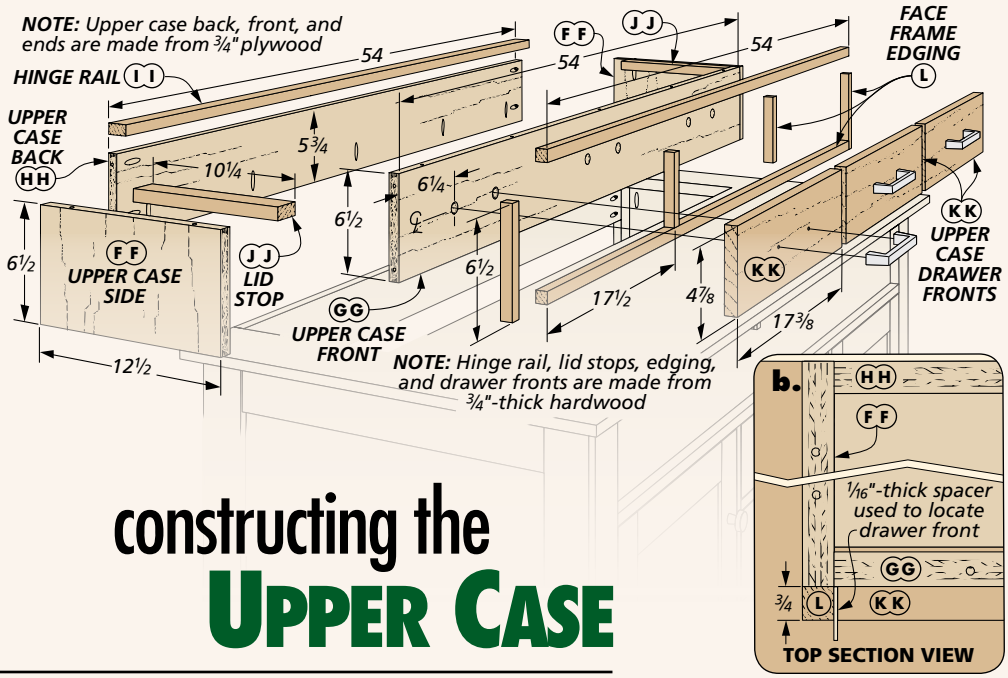
Rabbets. *The next step is to use a dado blade buried in an auxiliary rip fence to cut rabbets on both the stiles and the rails.*

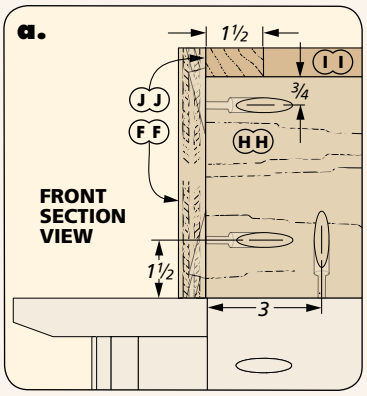


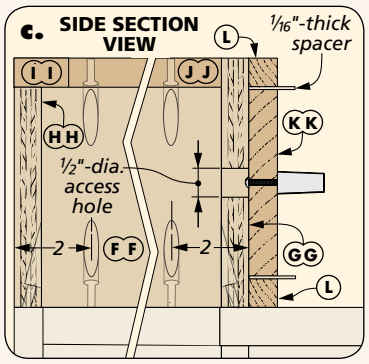
Cheeks. *Begin the tenons by adjusting the blade height with test cuts. To avoid mistakes, I always set the rip fence to make the shorter cuts first.*



Haunch. *The tenons are completed by holding the pieces on edge to cut the haunch on the outside edge of the stiles.*







constructing the UPPER CASE

The shallow upper case is positioned over the gap in the case top. This adds the height necessary to accommodate a large TV. The step-back design allows a lower viewing angle and makes for a more pleasing appearance.

The upper case is built as a four-sided plywood box with a false drawer assembly applied to the front. A top with an integral hinged lid allows the TV to rise from its compartment.

GETTING STARTED. The first thing to do is assemble the plywood box. This is accomplished with pocket hole joinery. I began by cutting all the pieces to size.

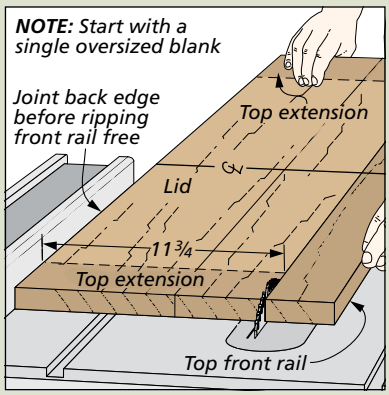
Note that the back piece is narrower than the front and sides (detail 'c'). A recess created at the top will be filled with a solid-wood hinge rail. And even though the grain direction of the front and back runs horizontally, you want the grain direction of the two sides to run vertically.

Next comes a stint drilling multiple pocket screw holes. These will be used to fasten the parts to each other, the upper case to the lower case, and the top to the upper case. All but the back need holes on *both* the upper and lower edges. The back has holes only on the lower edge. You'll also need to drill holes in the ends of the front and back (detail 'a').

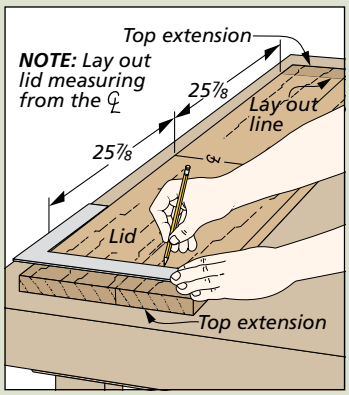
Once all the pocket screw holes were drilled and the case assembled, I added a few auxiliary parts. As I mentioned, a 1½"-wide hinge rail is fit across the back (detail 'c'). You'll also need to install a pair of lid stops flush with the top edges of the sides.

FALSE FRONTS. The false drawer assembly serves to disguise the unique function of the upper case. It's an easy addition.

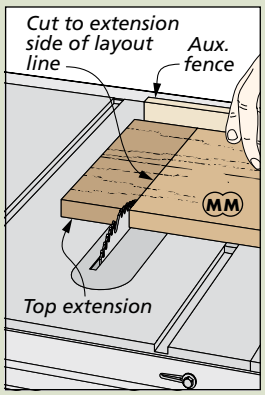
How-To: Make the Upper Case Top & Lid



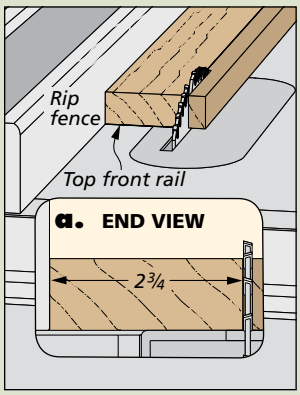
Rip First. *Joint the back edge of the oversize panel and then rip the lid section to the width of the extensions.*



Lay Out Lid. *Next, lay out the final length of the lid through the center of this section.*



Cut Lid. *Now, trim the lid to length with a single cut on each line.*



Rip Front Rail. *Rip the front rail to width before reattaching the extensions.*

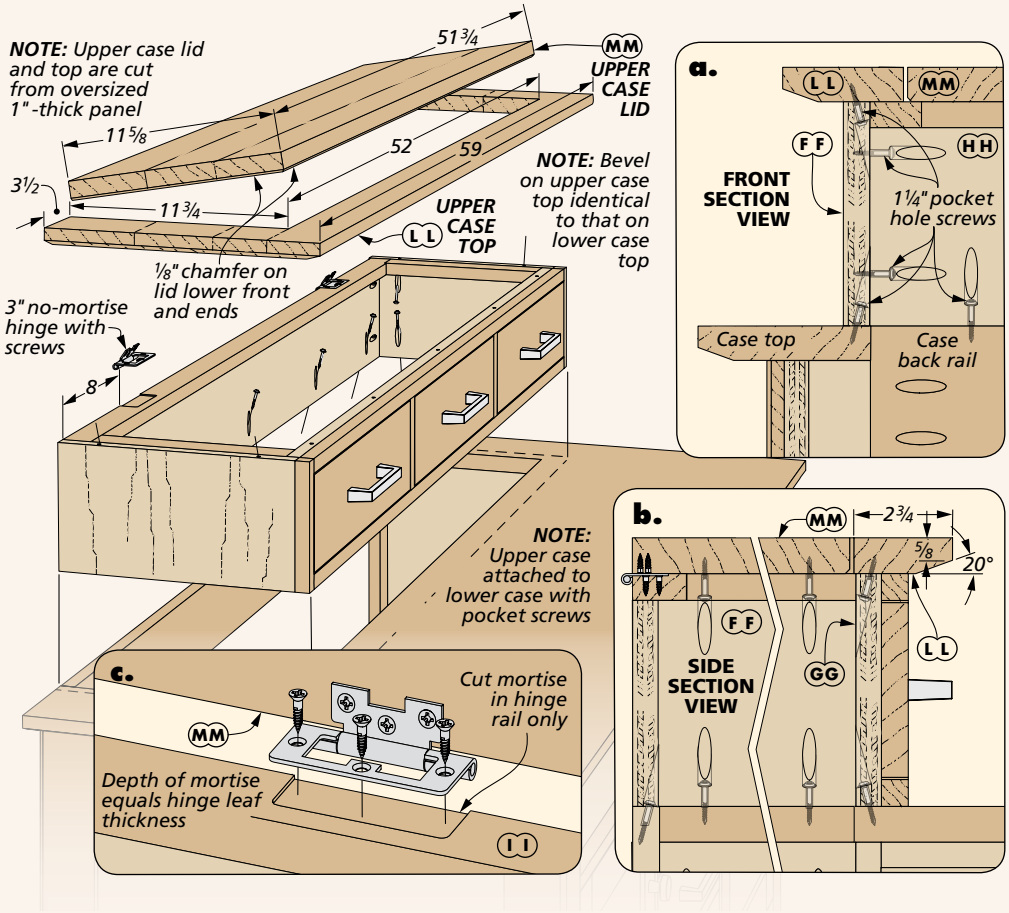
The first step is to frame in the three openings with ¾" square pieces. I fit and glued the short ends first, followed by the top and bottom rail. Complete the job by adding the two dividers. They're located to create equal openings.

The drawer fronts are cut from ¾"-thick stock and sized for a 1/16" gap all around. Before gluing them to the case front, I drilled pilot holes for the centered pulls and also drilled larger corresponding holes in the case front. These allow you to install the pulls after the fronts are glued on.

TOP & LID

Making the top with its hinged lid will complete the upper case. It's assembled somewhat similar to the lower case top, but with a twist. The How-To box starting on the previous page shows how the top and lid can be cut from a single panel to create a perfect figure match across the assembly.

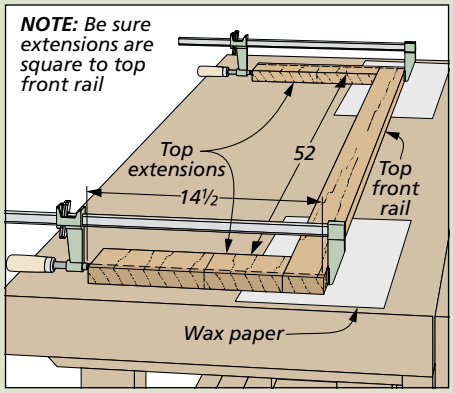
I started by gluing up and surfacing a panel about 1" oversized in width and 2" in length. After jointing the back edge, you can start cutting the panel into pieces as shown. In brief, you'll rip the panel to create a lid/extension section and a front rail. Then after crosscutting the extensions from the lid, you'll glue them back onto the front rail. Finally, the top and lid are trimmed to exact size before both get a profile — a routed bevel on the underside of the top and chamfer on the underside of the lid (details 'a' and 'b').



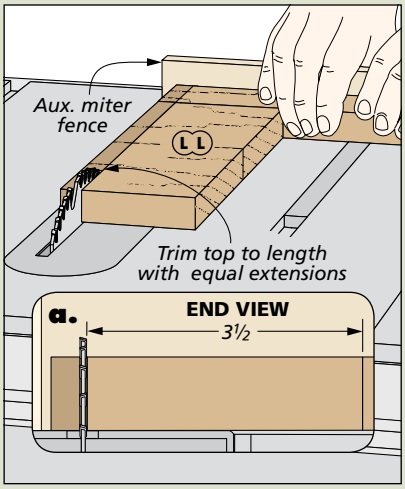
INSTALLATION. Once the top and lid were completed, you can start adding the upper case to the lower case. First, clamp the case over the rear opening and install the pocket hole screws that hold it in place. Then, clamp the top to the case before attaching it with pocket hole screws.

THE LID. The lid is attached to the upper case with a pair of no-mortise hinges. But in order for the lid to sit flush with the top, I had to set the hinges in shallow mortises cut in the hinge rail, as shown in detail 'c.' I installed the hinges in the mortises, then attached the lid. Aim for an even gap all around.

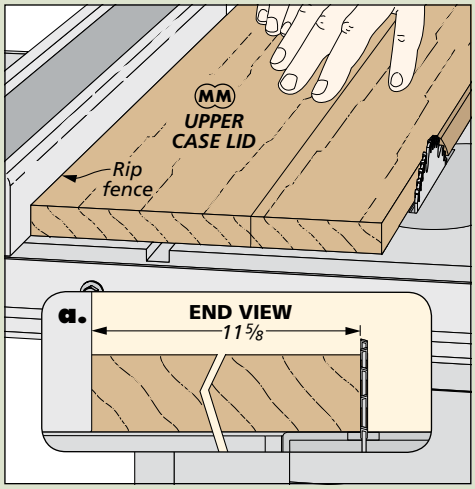
Top & Lid cont.



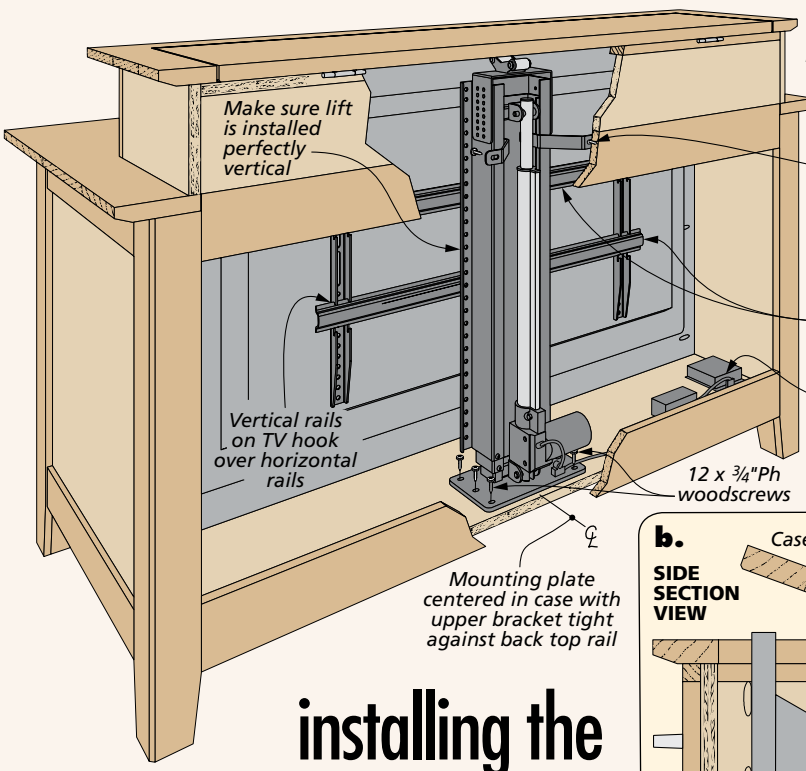
Glue Extensions. *When gluing the extensions onto the rail, make sure the figure aligns and the lid gap is accurate.*

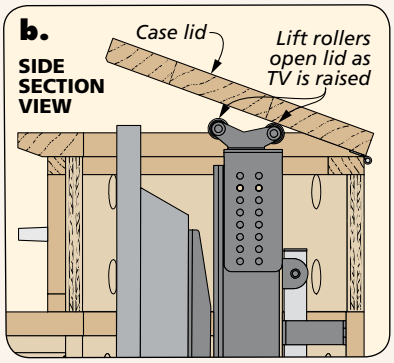


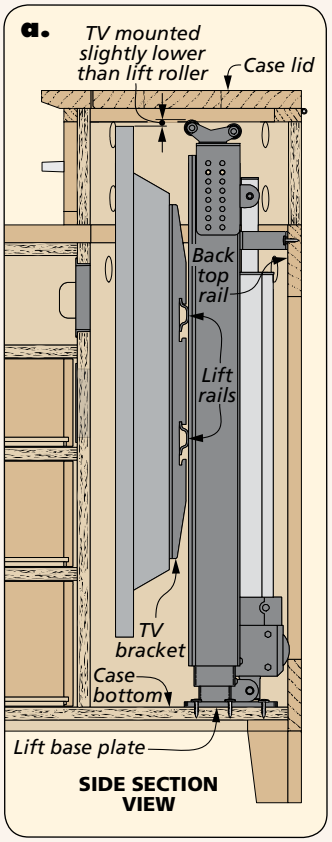
Trim Top to Length. *Once the glue is dry, trim the top to final length with an equal extension at each end.*



Trim Lid to Final Width. *To create a clearance gap for the lid, you'll need to trim 1/8" from the front edge of the panel.*







installing the LIFT & TV

The cabinet is now complete except for a couple of very important components — the TV and the lift that carries it. But these final steps are a piece of cake.

Before adding the lift and TV, you'll want to apply a finish to the cabinet. And as you can see in the photo at right, I stained and finished the TV compartment — just for the sake of tidiness.

THE LIFT. The lift is installed in the cabinet before the TV is mounted to it. The main drawing and detail 'a' show how the lift is attached by means of a mounting plate at the bottom and a rear facing bracket at the top.

First, I centered the lift side-to-side with the bracket tight against the upper frame rail. Then I drilled pilot holes for the pan-head screws and installed them. Finally, I made sure the lift was perfectly vertical before installing screws through the bottom mounting plate.

THE TV. Mounting the TV on the lift is equally easy. The hardware consists of a pair of horizontal rails that attach to the lift and a pair of vertical brackets that you'll attach to the TV. Once the parts are in place, the TV brackets simply hook over the rails. The TV should be positioned with the top edge slightly below the lift's rollers (detail 'a'). Then, when everything is ready and you push the button, the cabinet lid will slowly swing open and the TV will magically appear.

▲ The TV lift includes both a wireless (above) and a hard-wired remote.

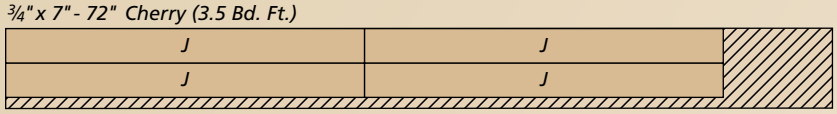
▲ The open back of the case allows easy installation of the lift mechanism.

Materials, Supplies, & Cutting Diagram

A	Case Sides (2)	3/4 ply. - 25 1/2 x 27 1/4
B	Case Bottom (1)	3/4 ply. - 25 1/2 x 57 1/2
C	Case False-back (1)	3/4 ply. - 26 x 57 1/2
D	Case Top/Shelf (2)	3/4 ply. - 13 3/4 x 57 1/2
E	Shelf Dividers (2)	3/4 ply. - 8 1/2 x 5
F	Edging (1)	3/4 x 1/4 - 96 rgh.
G	Vertical Dividers (2)	3/4 ply. - 13 3/4 x 19 1/2
H	Horizontal Dividers (2)	3/4 ply. - 13 3/4 x 17 1/2
I	Adjustable Shelves (4)	3/4 ply. - 13 x 19
J	Front/Back Stiles (4)	3/4 x 3 - 31 1/4
K	Front Bottom Rail (1)	3/4 x 1 1/4 - 54
L	Face Frame Edging (1)	3/4 x 3/4 - 340 rgh.
M	Back Rails (2)	3/4 x 4 - 54
N	End Stiles (4)	1/2 x 2 3/4 - 31 1/4
O	End Rails (4)	3/8 x 3 - 21
P	Foot Fillers (4)	2 1/4 x 2 1/2 - 4 1/2
Q	Top (1)	1 x 28 1/4 - 64
R	Upper Drawer Front (1)	3/4 x 4 7/8 - 17 3/8
S	Upper Drawer Sides (2)	1/2 x 4 7/8 - 14
T	Upper Drawer Back (1)	1/2 x 4 7/8 - 16
U	Drawer Bottoms (3)	1/4 ply. x 13 1/2 - 16
V	Middle Drawer Front (1)	3/4 x 5 7/8 - 17 3/8
W	Middle Drawer Sides (2)	1/2 x 5 7/8 - 14
X	Middle Drawer Back (1)	1/2 x 5 7/8 - 16
Y	Lower Drawer Front (1)	3/4 x 6 7/8 - 17 3/8
Z	Lower Drawer Sides (2)	1/2 x 6 7/8 - 14
AA	Lower Drawer Back (1)	1/2 x 6 7/8 - 16
BB	Door Stiles (4)	3/4 x 2 1/2 - 19 3/8
CC	Door Rails (4)	3/4 x 2 1/2 - 14 3/8
DD	Glass Stop (1)	1/4 x 1/4 - 120 rgh.
EE	Door Stops (2)	3/4 x 1/2 - 19 5/16
FF	Upper Case Sides (2)	3/4 ply. - 12 1/2 x 6 1/2
GG	Upper Case Front (1)	3/4 ply. - 6 1/2 x 54
HH	Upper Case Back (1)	3/4 ply. - 5 3/4 x 54
II	Hinge Rail (1)	3/4 x 1 1/2 - 54
JJ	Lid Stops (2)	3/4 x 1 1/2 - 10 1/4
KK	Upper Case Dwr. Fronts (3)	3/4 x 4 7/8 - 17 3/8
LL	Upper Case Top (1)	1 x 14 1/2 - 59
MM	Upper Case Lid (1)	1 x 11 5/8 - 51 3/4

- (1) TV Lift Mechanism
- (2) 1 1/4" Dia. Knobs
- (6) 128mm Pulls
- (3 pr.) 14" Full-Extension Slides
- (1 pr.) 3" No-Mortise Hinges
- (12) #4 x 5/8" Hinge Screws
- (3) Access Grommets
- (2 pr.) Euro-Style Inset Hinges
- (16) 1/4" L-Style Shelf Supports
- (2) 13" x 15" Frosted Glass Panels
- (41) #8 x 1 1/2" Fh Woodscrews
- (79) 1 1/4" Pocket Hole Screws
- (8) #12 x 3/4" Ph Woodscrews

3/4"x 7" - 72" Cherry (3.5 Bd. Ft.)



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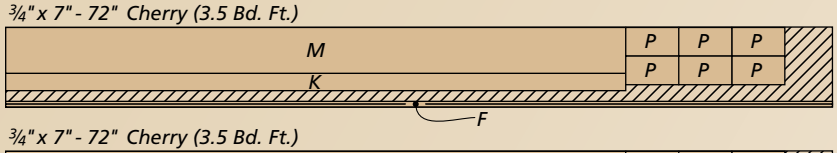

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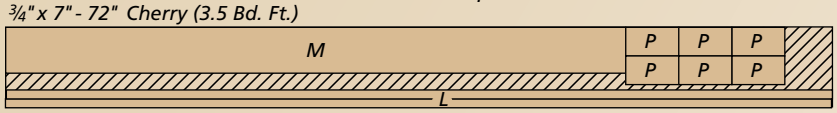

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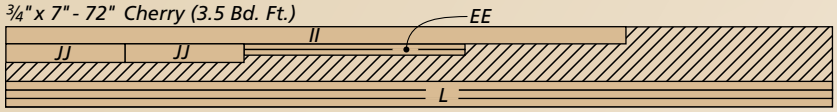
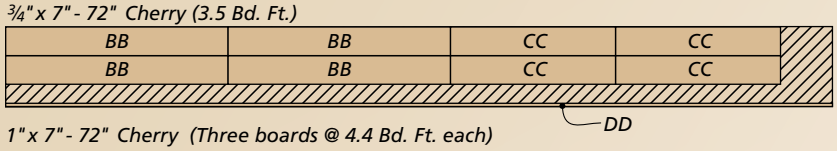
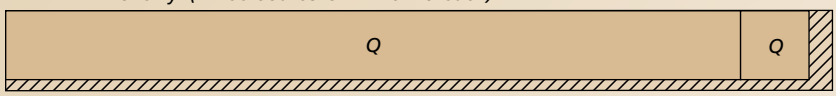


3/4"x 7" - 72" Cherry (3.5 Bd. Ft.)

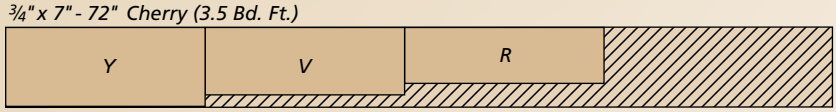


1"x 7" - 72" Cherry (Three boards @ 4.4 Bd. Ft. each)

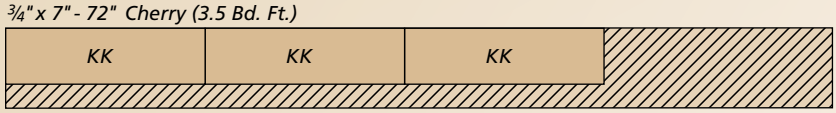


1"x 7" - 72" Cherry (Three boards @ 4.4 Bd. Ft. each)

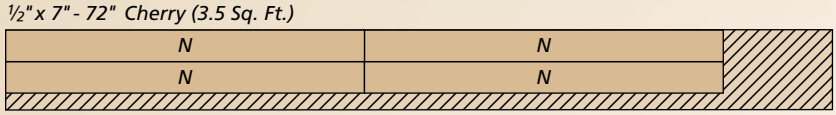
3/4"x 7" - 72" Cherry (3.5 Bd. Ft.)



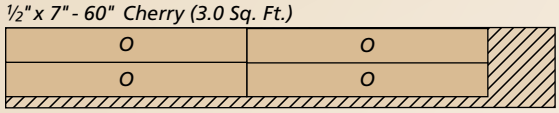
3/4"x 7" - 72" Cherry (3.5 Bd. Ft.)



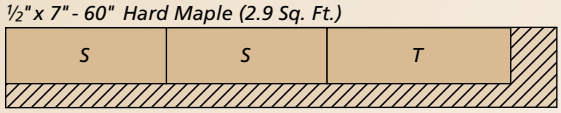
1/2"x 7" - 72" Cherry (3.5 Sq. Ft.)



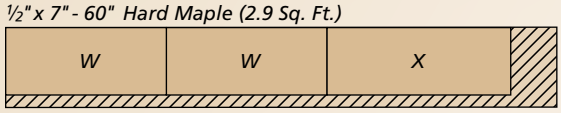
1/2"x 7" - 60" Cherry (3.0 Sq. Ft.)



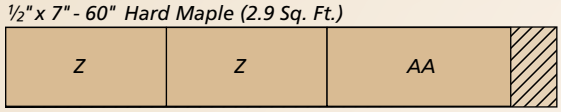
1/2"x 7" - 60" Hard Maple (2.9 Sq. Ft.)



1/2"x 7" - 60" Hard Maple (2.9 Sq. Ft.)



1/2"x 7" - 60" Hard Maple (2.9 Sq. Ft.)



ALSO NEEDED: *Two 48" x 96" Sheets of 3/4" Cherry Plywood*
One 48" x 48" Sheet of 3/4" Cherry Plywood
One 24" x 48" Sheet of 1/4" Maple Plywood

SHOP NOTEBOOK

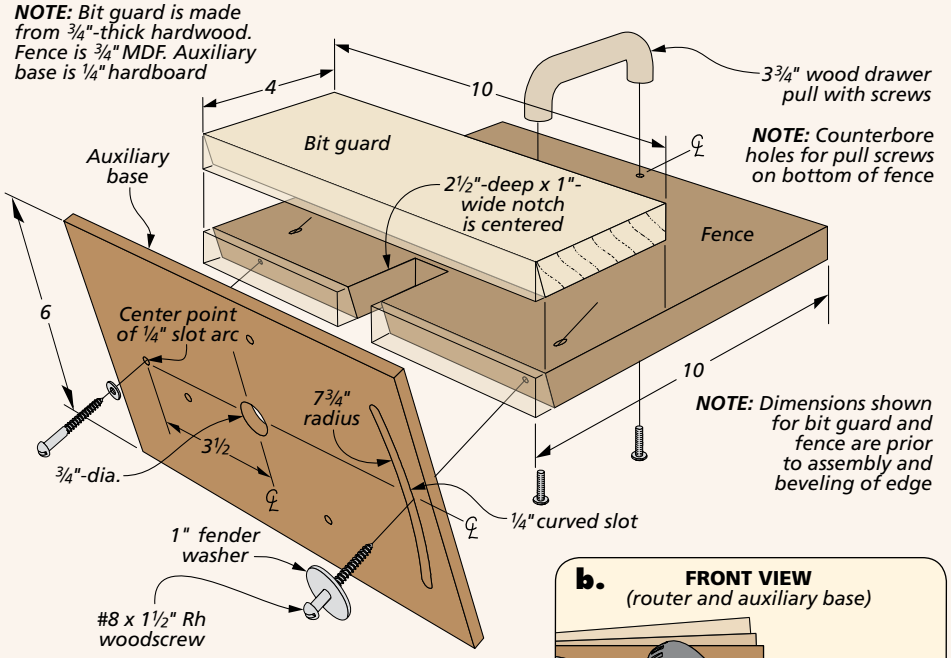
Beveling Jig

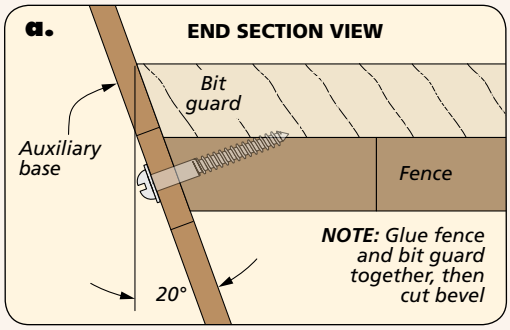
The design of the TV lift cabinet calls for a wide bevel on the underside of the tops for the main case and upper case. The size of the assemblies means that cutting these bevels on the table saw isn't practical. So to handle this job, I put together the adjustable router jig shown in the photo above. The jig relies on a 1½"-long, ½"-dia. straight bit to cut the bevels cleanly and manageably.

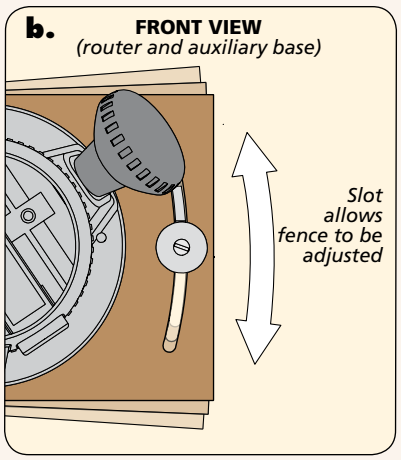
THE JIG. The drawings below show how the jig goes together. An auxiliary router base is attached to a large fence at a 70° angle (the bevel angle is 20°). One side of the fence is fastened through a curved slot in the base. This allows the position of the fence and depth of cut to be adjusted easily. A bit guard and handle attached to the fence make the jig more user friendly.

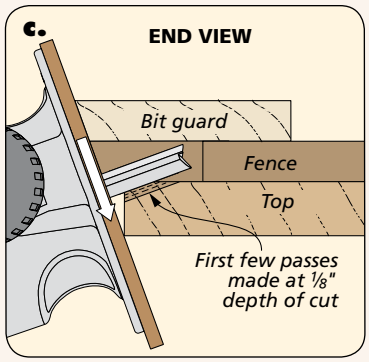
THE CUTS. The best way to create a smooth profile is with multiple passes. The initial cuts can be about ⅛" in depth. And as the bevel lengthens with each set of passes, lighten up on the depth of cut (details 'c' and 'd').

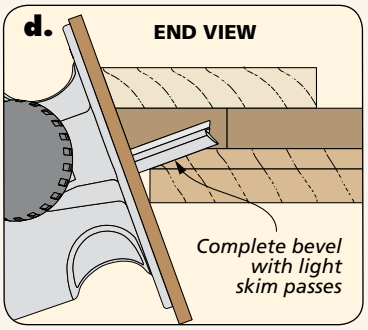
Start at the back right corner and move right to left around the top. As you see in the photo above, I clamped a backup piece behind the left end of the top. This prevents tearout as the bit exits.







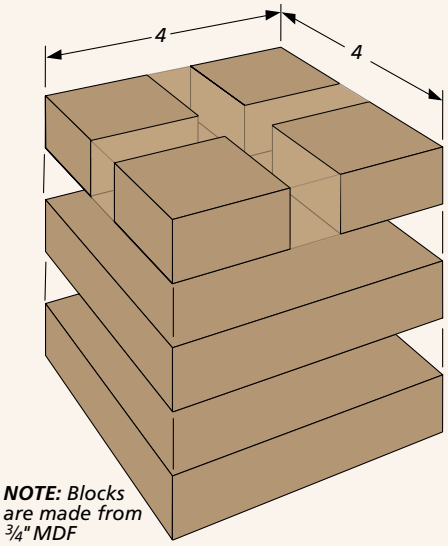




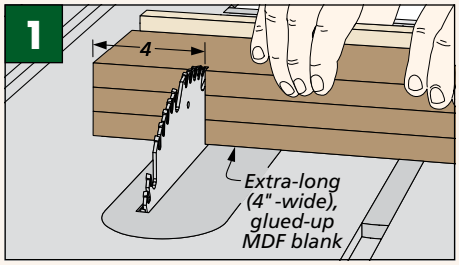
Panel Support Block

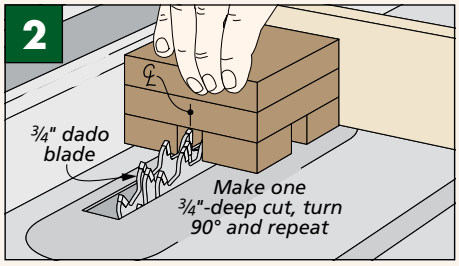
When assembling the lower case of the TV lift cabinet, I needed a way to hold the large plywood panels upright and square to each other while I installed the screws. Furthermore, I wanted to raise the panels high enough to allow clamps to be slipped underneath. The slotted support blocks you see at right are the answer.

The square blocks are cut from a long blank glued up from three layers of ¾" MDF. A dado blade makes quick work of cutting two perpendicular slots in one face (Figures 1 and 2).



NOTE: *Blocks are made from ¾" MDF*





Project Sources

I found most of the hardware for the TV lift cabinet at *Lee Valley*. You'll need 1¼" dia. knobs (02A17.70), 128mm pulls (02A17.77), 14" drawer slides (02K42.14), 3" no-mortise hinges (00H51.24), ⅝" hinge screws (01Z10.52), access grommets (00U09.91), and inset hinges (00B15.34).

The *Whisper Lift II* (23202) came from *Touchstone*. And *Rockler* carries the shelf supports (33860).

The TV cabinet was stained with a mix of equal parts *Varathane Gunstock* and *Early American* oil stains. This was followed with two coats of satin lacquer.

MAIL ORDER SOURCES

Woodsmith Store
800-444-7527

Lee Valley
800-871-8158
leevalley.com

Rockler
800-279-4441
rockler.com

Touchstone
888-267-3615
touchstonehome-products.com